

Impact of ESG on Financial Performance of Companies: An Analysis of the Indian Stock Market

Saklesh S Nagouda,

Associate Professor,
School of Business and Management,
Christ University, Bengaluru
saklesh.s.nagouda@christuniversity.in

Manu K S,

Assistant Professor,
School of Business and Management,
Christ University, Bengaluru.
manu.ks@christuniversity.in

Abstract

This study investigates the relationship between Environmental, Social, and Governance (ESG) factors and the financial performance of the Sensex Index, a prominent benchmark of the Indian stock market. With growing awareness of sustainability and responsible investing, the influence of ESG considerations on financial markets has become a subject of great interest. To explore this relationship, the study employ a comprehensive dataset covering ESG metrics and financial indicators for the Sensex constituents over ten years period. The study employs Panel regression analysis to analyze the impact of ESG factors on financial performance of Sensex shares. The study found that low negative correlation between ROE and ESG disclosure scores. Low positive correlation between other financial indicators and ESG scores. Further, panel regression results found that except share prices there is no significant impact of ESG disclosure scores on all the dependent variables EPS, ROE, ROA and Financial Leverage of all Sensex shares. The results of this research carry significant implications for investors, corporations, and policymakers, highlighting the potential benefits of integrating ESG considerations into investment strategies. In a world where sustainability and corporate responsibility are increasingly valued, understanding the interplay between ESG factors and financial performance in a prominent market index like the Sensex is of paramount importance.

Key words: *ESG Disclosure Panel Regression analysis Financial Performance and Sensex Shares.*

Introduction

In recent years, the global business landscape has witnessed a paradigm shift in the way companies operate and are evaluated by stakeholders, investors, and the broader society. Environmental, Social, and Governance (ESG) factors have emerged as crucial determinants of a company's long-term sustainability, value creation, and overall success Zumente & Bistрова (2021). ESG considerations encompass a wide range of criteria, including environmental impact, social responsibility, and ethical governance practices Pollman, E. (2019)., Lye et al. (2020). As these factors continue to gain traction worldwide, they are

increasingly being recognized as influential drivers of financial performance and investor decision-making. This research endeavors to delve into the nuanced relationship between ESG practices and financial performance, focusing on the context of the Indian stock market.

The Indian stock market, one of the world's largest and fastest-growing, is a dynamic ecosystem characterized by diverse industries, regulatory frameworks, and investor behaviors. Muthukannan et al (2020). Over the years, Indian companies have realized the need to align their strategies with ESG principles to not only mitigate risks but also harness opportunities for sustainable growth. This study aims to provide a comprehensive analysis of how Indian companies are integrating ESG factors into their operations and assessing the subsequent impact on their financial performance.

In a world confronted by an array of challenges, from climate change to social inequality and corporate governance scandals, the evaluation of a company's ESG performance is not just a matter of ethical concern; it is deeply intertwined with financial outcomes. Laine et al (2021). Numerous studies have revealed a strong correlation between strong ESG practices and enhanced financial performance, including increased profitability, reduced risk, and improved access to capital. By investigating the Indian stock market, this research will explore the extent to which ESG factors influence the investment landscape in a rapidly evolving economic environment.

The rationale behind this research stems from the growing importance of ESG issues in the Indian corporate sphere, with stakeholders increasingly scrutinizing how companies address environmental sustainability, social responsibility, and ethical governance. Hasan et al (2021). As the government and regulatory bodies in India introduce new ESG disclosure requirements and incentives, it becomes crucial to understand how these initiatives impact the financial behavior of companies and the investment decisions of market participants.

Furthermore, this study acknowledges the unique challenges and opportunities faced by Indian businesses in their quest to incorporate ESG practices into their operations. The nation's rich cultural and socioeconomic diversity, coupled with a spectrum of industries, adds complexity to the ESG landscape in India. Lèbre et al (2020). This research seeks to provide insights into the strategies employed by Indian companies to navigate these challenges while harnessing the financial benefits of ESG integration.

The study of the impact of ESG on the financial performance of companies in the Indian stock market is both timely and relevant, given the increasing global interest in ESG issues and the unique dynamics of the Indian business environment. By exploring this relationship, this research aims to shed light on the potential pathways through which ESG considerations can drive sustainable value creation and guide investors, policymakers, and businesses toward more informed and responsible decision-making in the Indian context.

ESG, which stands for Environmental, Social, and Governance, has indeed undergone a remarkable transformation over the years. While the term first gained significant recognition in a 2004 UN report, its journey towards becoming a proactive rather than reactive movement was a gradual one. McGregor, D. (2004). It's in the late 2010s and into the 2020s that ESG began to emerge as a comprehensive framework, reflecting a growing awareness of its importance in the business world.

Today, ESG is no longer just a buzzword; it has evolved into a multifaceted approach that encompasses a wide array of factors, each of which plays a crucial role in evaluating a company's sustainability, ethical practices, and long-term viability. James et al (1993).

This evolution is driven by several key elements:

Environmental Impact: The "E" in ESG focuses on a company's environmental practices. It delves into how businesses manage their impact on the planet, including their efforts to reduce carbon emissions, conserve natural resources, and adopt sustainable practices. Environmental impact considerations have gained immense prominence as the world grapples with issues like climate change and resource scarcity. Dalby, S. (2013).

Social Responsibility: The "S" in ESG emphasizes a company's commitment to social responsibility. This involves examining how businesses engage with their employees, customers, communities, and other stakeholders. Companies are increasingly being assessed on their efforts to promote diversity and inclusion, ensure fair labor practices, and contribute positively to society at large. Shen et al (2009).

Governance Structures: The "G" in ESG revolves around governance structures and how they can be improved to maximize stakeholder well-being. This includes aspects such as board composition, executive compensation, transparency, and ethical decision-making. Strong governance ensures that a company is managed in a responsible and accountable manner, safeguarding the interests of both shareholders and the broader community. Solomon, J. (2020).

ESG's evolution reflects a significant shift in the way businesses are perceived and evaluated. It has moved beyond being solely an ethical or sustainability concern to a fundamental aspect of corporate strategy and value creation. Investors, customers, employees, and regulators are increasingly scrutinizing how companies integrate ESG principles into their operations.

The proactive nature of this movement is evident in various ways. Companies are now not only addressing ESG risks and challenges but also recognizing the opportunities it presents for growth, innovation, and resilience. De Hoyos et al (2022). They are incorporating ESG considerations into their strategic planning, product development, and marketing efforts, which reflects a forward-thinking approach to business.

ESG's journey from a term introduced in a 2004 UN report to a comprehensive and proactive framework is a testament to the growing recognition of its significance in today's business landscape. Lindsay et al (2020). As environmental, social, and governance issues continue to shape the world, ESG has become an essential tool for companies to navigate these challenges, gain a competitive edge, and contribute positively to a sustainable and inclusive future.

Literature Review

Examining the influence of ESG factors on the financial performance of companies in the Indian stock market is a critical endeavor for several reasons:

Investor Interest: Investors increasingly consider ESG criteria when making investment decisions. This study helps provide insights into sustainable and responsible investment opportunities.

Risk Management: ESG factors can signal potential risks that may affect a company's financial stability. Understanding this relationship assists in identifying and mitigating risks related to environmental, social, and governance issues.

Regulatory and Policy Impact: Governments and regulators are beginning to implement ESG-related regulations and standards. Research in this area can aid in the development of effective guidelines and requirements for companies, which, in turn, can influence market behavior.

Strategic Decision-Making: Businesses can benefit from understanding how ESG factors impact financial performance as it informs strategic choices. Companies that prioritize ESG considerations may gain a competitive edge and bolster long-term sustainability.

Sustainable Development: Companies play a significant role in economic and social development. Studying the impact of ESG on financial performance contributes to the broader objective of achieving sustainable economic growth and societal well-being.

Stakeholder Expectations: Meeting ESG performance expectations is important to various stakeholders, including customers, employees, and communities. Companies that align with these expectations can enhance their reputation and relationships with stakeholders.

Long-Term Viability: ESG factors can signal a company's ability to thrive over the long term. Researching this relationship encourages a focus on sustainable, long-term growth rather than short-term gains.

Investigating how ESG factors affect the financial performance of companies in the Indian stock market is crucial for informed investment decisions, risk management, policy development, and the promotion of a sustainable and responsible business environment. It benefits investors, companies, and society as a whole.

Research on the impact of ESG (Environmental, Social, and Governance) factors on the financial performance of companies has been a growing area of interest.

Dalal & Thaker (2019) examined how Environmental, Social, and Governance (ESG) factors influence the performance of Indian public limited companies in terms of profitability and firm value. The study, based on ESG data from 65 Indian firms listed on the NSE 100 ESG Index database from 2015 to 2017, employs statistical analysis to find that strong ESG performance is associated with improved financial performance, both in accounting and market-based terms. The study highlights the significance of adopting sustainability reporting and ESG disclosure for corporations, investors, regulators, and policymakers to promote sustainable business practices and long-term shareholder wealth.

This study, Almeyda & Darmansya (2019) investigated the influence of non-financial factors, particularly ESG (Environment, Social, and Governance) disclosure, on companies' financial performance.

They noted the increasing importance of ESG performance as a risk measurement in investment decisions and decided to delve deeper into this topic, focusing on the real estate sector. The research collected data from companies in the G7 countries, known for their strong economies, and assessed financial performance using various metrics, including Return on Assets (ROA), Return on Capital (ROC), Stock Price, and Price-to-Earnings ratio (P/E). Data was collected over a five-year period from 2014 to 2018, and statistical analysis using STATA was employed to examine the correlations. The findings revealed a statistically significant positive relationship between ESG disclosure and a company's ROA and ROC. Interestingly, this relationship did not extend to Stock Price and P/E. Moreover, a noteworthy positive relationship was observed between the Environmental factor and a company's ROC and Stock Price. However, the study did not find significant relationships between the Social and Governance factors and a company's financial performance.

Shakil et al (2019). This paper focuses on evaluating the impact of ESG (Environment, Social, and Governance) performance on the financial performance of banks in emerging markets. The study utilizes the generalized method of moments technique to account for the dynamic nature of the data and address endogeneity issues. Data was drawn from 93 emerging market banks over the period of 2015 to 2018, with ESG performance data. The study's findings reveal a positive connection between the environmental and social performance of emerging market banks and their financial performance. However, the study did not find a significant influence of governance performance on financial performance.

Al Amosh et al (2023) investigated the relationship between sustainability disclosure, encompassing environmental, social, and governance (ESG) aspects, and the financial performance of companies in the Levant countries during the turbulent period of 2012-2019. The study utilized content analysis to gather data from 124 non-financial companies in the Levant region (Jordan, Palestine, Syria, and Lebanon), resulting in a panel dataset of 883 observations.

The findings of this research indicate that collectively, the performance in environmental, social, and ESG areas positively influences financial performance, as represented by Tobin's Q, return on assets (ROA), and return on equity indices. Furthermore, it was observed that governance performance specifically influences ROA. This suggests that companies in the Levant region prioritize various stakeholders, particularly those external to the organization. The paper concludes that optimizing stakeholder value remains an effective strategy to attain financial objectives. It also suggests that enhancing the disclosure of non-financial performance in capital markets can lead to improved financial performance indicators for companies.

Sila et al (2017) Corporate Social Responsibility (CSR) is increasingly vital for businesses and their stakeholders, encompassing the environmental, social, and governance (ESG) aspects that can impact economic performance. This research, based on stakeholder theory, examines the influence of CSR performance on organizations' economic performance, utilizing ESG data from Australian firms spanning 2010 to 2016. All independent variables were lagged by one year. Regression analysis was employed to assess the impact of CSR performance.

The findings reveal that social performance consistently leads to enhanced economic performance. Environmental performance also has a positive impact, though to a lesser extent than social performance. However, the influence of governance on economic performance is weak, with only one significant effect noted in 2015. This study contributes to the literature by emphasizing economic performance over traditional financial metrics and aids managers in understanding the significance of each ESG dimension for economic performance.

Bahadori et al (2021). This article explores the association between firm-level financial performances and environmental, social, and governance (ESG) scores in emerging markets, addressing a research gap predominantly focused on developed countries.

The study encompasses a diverse range of firms across 24 prominent emerging markets and applies stakeholder management and institutional theories to develop and test hypotheses. Linear regression analyses were conducted on panel data from over 600 firms spanning the years 2014 to 2018, sourced from the Thompson Reuters Eikon database. The results indicate that, even after accounting for firm size and leverage, firms with higher ESG scores tend to exhibit greater profitability. This insight has important implications for policies and managerial practices. Ultimately, this study contributes to a deeper understanding of the connection between ESG initiatives and firm performance in emerging markets.

Ortas et al (2015). This study investigates the environmental, social, governance (ESG), and financial implications of companies that adopt the United Nations Global Compact (UNGC), focusing on firms in Spain, France, and Japan, the countries with the highest number of UNGC participants. The findings indicate that UNGC adoption often leads to organizational changes that enhance stakeholder engagement, resulting in improved ESG performance. Additionally, the study demonstrates a significant relationship between ESG performance and financial performance among UNGC-adopting companies. These results offer both non-financial and financial incentives for companies to engage in this voluntary corporate social responsibility initiative, which can significantly impact their strategic management policies geared toward sustainable business practices and community development. The connection

between ESG and financial performance may be influenced by geographical differences, stemming from variations in institutional, societal, and cultural contexts.

Taliento et al (2019). This study delves into the impact of Environmental, Social, and Governance (ESG) information on economic performance, highlighting a potential 'Sustainability Advantage' within the corporate realm, with a particular focus on European companies.

Employing a unique approach, the study utilizes Partial Least Squares/Structural Equation Modeling (PLS/SEM) to analyze the impact of non-financial outcomes, measured by sustainability indicators, on financial and market performance from 2014 to 2017. Notably, the study introduces the concept of "ESG distance" from industry averages, emphasizing the relative ESG performance compared to the sector norm. The results indicate that while the absolute ESG scores themselves may not be individually significant, the "distance" from the industry average, particularly in terms of ESG performance exceeding the norm, proves to be positively relevant. This finding highlights the notion of a competitive advantage in sustainability practices. Corporate size is also identified as a significant factor, serving as a proxy for slack resources. Moreover, social, environmental, and governance responsibility to all stakeholders emerges as a crucial competitive factor in modern corporate settings.

Based on the provided information, a potential research gap in the existing literature could be the need for more in-depth and nuanced exploration of:

Industry-Specific Effects: While research acknowledges that the impact of ESG factors can vary by industry, there may be a gap in understanding the specific mechanisms and dynamics at play in different sectors. More focused studies on how ESG affects industries with distinct characteristics and challenges could provide valuable insights.

Long-Term vs. Short-Term Impacts: Although research highlights the long-term focus of ESG benefits, there may be room for investigations into the timeframes over which these effects manifest. Understanding the timing of ESG-related financial improvements and their sustainability could be an area for further exploration.

Cultural and Regional Variations: The impact of ESG on financial performance is recognized to differ by region and market, influenced by cultural, economic, and regulatory factors. However, there may be a research gap in terms of providing a more detailed analysis of these regional disparities and the specific contextual factors driving these variations.

Regulatory and Reporting Frameworks: As regulatory requirements and reporting standards evolve, more research is needed to assess how these changes influence corporate behavior and financial performance. This could involve a closer examination of the effectiveness of different regulatory approaches in different countries or regions.

Methodological Consistency: Research acknowledges methodological differences in ESG studies, which can lead to variations in findings. Addressing this gap may involve developing standardized approaches or frameworks for assessing ESG impacts on financial performance, enhancing the comparability of research outcomes.

To fill these potential research gaps, scholars could conduct more granular studies that consider industry-specific contexts, conduct longitudinal analyses, delve into the regional nuances of ESG effects, examine the impact of evolving regulatory frameworks, and work toward methodological standardization in ESG research.

Objective of the study

To analyze the impact of ESG disclosure scores – Aggregate score and individual score – Environmental, Social and Governance scores and financial indicators on financial performance of Sensex shares.

Hypothesis

Ho: There is no significant impact of ESG disclosure scores – Aggregate score and individual score – Environmental, Social and Governance scores on financial indicators on financial performance of Sensex shares.

H1: There is a significant impact of ESG disclosure scores – Aggregate score and individual score – Environmental, Social and Governance scores on financial indicators on financial performance of Sensex shares

Methodology

Data: The study collected ESG disclosure scores – Aggregate score and individual score – Environmental, Social and Governance scores and financial indicators such as EPS, ROE, ROA, Financial Leverage and share prices of all the Sensex shares.

Period of the study: The data collected yearly data for the period of 10 years from 2013 to 2022.

Analytical Tool: The study used panel data regression analysis to analyze the impact of ESG disclosure scores on the financial indicators of Sensex shares.

$$FI = \beta_0 + \beta_1 \text{ESGDS}_{it} + \beta_2 \text{GOVDS}_{it} + \beta_3 \text{ENVDS}_{it} + \beta_4 \text{SOCDS}_{it}$$

FI – Financial Indicator

ESGDS - ESG Disclosure Score

GOVDS – Governance Disclosure Score

ENVDS- Environmental Disclosure Score

SOCDS- Social Disclosure Score

The study conducted Pooled regression analysis, fixed and random regression models to analyze the impact. Further the study conducted Hausman Test to select the fixed or random model.

Table 1
Descriptive Statistics

	ENV_DIS C_SC	EPS	ESG_DISC_S CORE	FINL_LEV	GOV_DISC _SC	PRICE	ROA	ROE	SOC_DIS C_SC
Mean	31.95	39.21	47.56	4.4	82.01	1792	8.52	19.61	28.59
Medi	36.18	25.53	49.63	3.24	83.59	838	4.53	16.77	29.23
Max	70.76	260.88	74.2	17.56	98.62	19708	34.8	123.26	58.56
Min	0	-84.89	0	0	0	26.85	-10.12	-43.32	0
Std.D	20.67	49.28	11.75	3.67	10.2	2837	8.77	--19.47	12.37
Skew	-0.1	2.44	-0.44	1.57	-2.73	3.74	0.95	2.32	0.09
Kurto	1.83	10.4	2.9	5.16	18.41	19.91	3.14	13.32	2.8
JB	17.63	982.75	9.65	182.06	3342.82	4275	45.67	1600.07	0.9
Prob	0	0	0.01	0	0	0	0	0	0.64
N	300	300	300	300	300	300	300	300	300

Table 1 shows the descriptive statistics of ESG scores and financial indicators of all the Sensex 30 stocks. The JB test indicates that except social disclosure score all the other variables are not normally distributed.

Table 2
Correlation Analysis

	EPS	ROA	ROE	PRICE	FINL_LEV
ENV_DISC_SC	0.28	0.19	-0.06	-0.02	-0.44
ESG_DISC_SCORE	0.21	0.11	-0.10	-0.06	-0.35
GOV_DISC_SC	-0.08	-0.03	-0.06	-0.11	-0.14
SOC_DISC_SC	0.19	0.03	-0.16	-0.06	-0.16

The table 2 shows Correlation analysis. It indicates low negative correlation between ROE and ESG disclosure scores, Finance leverage and ESG disclosure scores and Price and ESG disclosure scores. Further, it's found low positive correlation between other financial indicators and ESG scores.

Table 3
Unit Root test results

	Levin, Lin & Chu t	P	Im, Pesaran and Shin W-stat	P	ADF - Fisher Chi-square	P	PP - Fisher Chi-square	P
D(ENV_DISC_SC)	-0.31	0.3801	-2.46	0.01	95.99	0.00	234.92	0.00
EPS	-7.09	0.00	-0.80	0.21	75.57	0.08	166.73	0.00
D(ESG_DISC_SCORE)	-8.52	0.00	-4.17	0.00	127.15	0.00	282.89	0.00
FINL_LEV	-8.83	0.00	-2.86	0.00	103.55	0.00	122.90	0.00
D(GOV_DISC_SC)	-1.42	0.08	-5.92	0.00	104.54	0.00	170.30	0.00
ROA	-8.61	0.00	-0.69	0.24	75.95	0.08	101.93	0.00
ROE	-4.17	0.00	0.76	0.78	64.83	0.31	63.95	0.34
D(SOC_DISC_SC)	-10.30	0.00	-3.52	0.00	113.43	0.00	206.58	0.00
PRICE	-7.56	0.00	-1.86	0.03	93.67	0.00	71.70	0.14

Table 3 shows unit root test results. The results clearly indicates that all the ESG disclosure scores are stationary at first order difference. Further, all the financial indicators are stationary at level.

Table 4
Panel regression analysis results: EPS

	Pooled Regression		Random	
	Coeff	Prob	Coeff	Prob
C	37.06	0.00	36.80	0.00
D(ENV_DISC_SC)	-31.71	0.83	-41.72	0.58
D(ESG_DISC_SCORE)	95.03	0.84	125.73	0.58
D(GOV_DISC_SC)	-32.15	0.83	-41.87	0.58
D(SOC_DISC_SC)	-31.08	0.84	-42.08	0.58
F-statistic	0.41	0.80	0.45	0.77
Adjusted R-squared	-0.01		-0.01	
Hausman Test and Normality Test				
Hausman Test			Normality Test	
Chi-Sq. Statistic	9.45	JB statistc	1022.18	
prob	0.0507	Prob	0.00	

Table 5
Panel regression analysis results: ROA

	Pooled Regression		Random	
	Coeff	Prob	Coeff	Prob
C	8.568114	0	8.541107	0
D(ENV_DISC_SC)	-1.057823	0.9705	-0.42869	0.96
D(ESG_DISC_SCORE)	3.293456	0.9694	1.294065	0.9598
D(GOV_DISC_SC)	-1.130524	0.9686	-0.43073	0.96
D(SOC_DISC_SC)	-1.100348	0.9693	-0.42338	0.9605
F-statistic	0.094582	0.984122	0.030246	0.99823
Adjusted R-squared	-0.013647		-0.01463	
Hausman Test and Normality Test				
Hausman Test		Normality Test		
Chi-Sq. Statistic	1.020441	JB statistc	41.29	
prob	0.9067	Prob	0.00	

Table 6
Panel regression analysis results: ROE

	Pooled Regression		Random	
	Coeff	Prob	Coeff	Prob
C	19.57577	0	19.51978	0
D(ENV_DISC_SC)	-5.12039	0.9348	-3.143762	0.9289
D(ESG_DISC_SCORE)	15.48985	0.9343	9.284019	0.93
D(GOV_DISC_SC)	-5.1382	0.9348	-3.084128	0.9305
D(SOC_DISC_SC)	-5.20955	0.9336	-3.046152	0.931
F-statistic	0.040204	0.996915	0.100692	0.98215
Adjusted R-squared	-0.01448		-0.013554	
Hausman Test and Normality Test				
Hausman Test		Normality Test		
Chi-Sq. Statistic	1.8805	JB statistc	1432.61	
prob	0.7577	Prob	0.00	

Table 7:
Panel regression analysis results: Financial Leverage

	Pooled Regression		Random	
	Coeff	Prob	Coeff	Prob
C	4.347351	0	4.406947	0
D(ENV_DISC_SC)	-0.48744	0.9672	0.024368	0.9915
D(ESG_DISC_SCORE)	1.439366	0.9677	-0.09753	0.9886
D(GOV_DISC_SC)	-0.49916	0.9665	0.029754	0.9896
D(SOC_DISC_SC)	-0.49062	0.9669	0.045069	0.9842
F-statistic	0.210852	0.932282	0.894008	0.467992
Adjusted R-squared	-0.01187		-0.00158	
Hausman Test and Normality Test				
Hausman Test		Normality Test		
Chi-Sq. Statistic	0	JB statistc	152.00	
prob	1	Prob	0.00	

Table 8
Panel regression analysis results: Share Price

Price	Pooled Regression		Random	
	Coeff	Prob	Coeff	Prob
C	1714.667	0	1700.238	0.0001
D(ENV_DISC_SC)	11887.4	0.1717	11629.61	0.0235
D(ESG_DISC_SCORE)	-35743.5	0.1711	-34963	0.0233
D(GOV_DISC_SC)	11931.54	0.1716	11689.1	0.0233
D(SOC_DISC_SC)	11920.74	0.1703	11637.88	0.0233
F-statistic	0.796344	0.528443	1.62512	0.168214
Adjusted R-squared	-0.00304		0.00921	
Hausman Test and Normality Test				
Hausman Test		Normality Test		
Chi-Sq. Statistic	0	JB statistic	3788.00	
prob	1	Prob	0.00	

Table 4-8 shows the panel regression analysis results. The study analyzed using pooled regression, fixed and random models. Hausman test results indicate that Random model is preferred over fixed models.

The random regression model results show that all the probabilities of ESG disclosure scores are insignificant. There is no significant impact of ESG disclosure scores on all the dependent variables EPS, ROE, ROA and Financial Leverage of all Sensex shares. Further, the results found that there is significant impact of all the ESG disclosure scores – aggregate ESG scores, environmental, Governance and Social disclosure scores on share prices of senses shares. However the Jarque-Bera test results indicate that the residuals are not normally distributed for all the random regression models.

India's lag in complying with ESG norms can be attributed to several factors. Firstly, the ESG framework and regulations in India were relatively underdeveloped compared to some Western economies, which may have hindered widespread adoption. Additionally, there was a lack of uniformity and reporting standards for ESG disclosures, making it challenging for companies to align with global best practices.

Furthermore, while there has been a growing awareness of ESG considerations, the implementation of comprehensive ESG practices often requires significant investments and cultural shifts within organizations. Many Indian companies may have been slower to prioritize these changes due to concerns about short-term financial impacts and a focus on traditional business metrics.

It's important to note that there has been progress in recent years, but the transition to full ESG compliance takes time. The impact of ESG compliance on financial performance can vary, and many Indian companies are still working on fully integrating ESG considerations into their operations and strategies, which may not have yielded immediate financial benefits. However, the increasing recognition of ESG's importance suggests that companies may need to accelerate their efforts to stay competitive in the long run.

Implications and Conclusion

The results show that except Price, there is no significant impact of ESG scores on financial indicators. As per Crisil's ESG risk assessment, though there is an improvement in ESG performance but most of the Indian companies are struggling in ESG space. Out of 586 companies, only 14 were in outstanding performance, 108 are in strong, 73 in the weak and below expectation category. (Baruah, R. (2022). Rao et.al (2023) examined the impact of ESG practices on financial performance of Nifty 50 companies. They

found that governance and environmental scores are negatively impact on ROE. Further no significant impact of social practices on ROE.

The findings from the study on the relationship between Environmental, Social, and Governance (ESG) factors and the financial performance of the Sensex Index, as well as the study on Nifty 50 companies, reveal some important insights regarding the impact of ESG considerations on financial indicators. It is essential to draw conclusions from these findings without plagiarism.

Here's a summary of the key takeaways:

Mixed Correlation between ESG and Financial Performance:

The study on the Sensex Index found that there is a low negative correlation between Return on Equity (ROE) and ESG disclosure scores. In contrast, there is a low positive correlation between other financial indicators and ESG scores. This suggests that ESG factors may have varying impacts on different financial metrics.

Limited Impact on Financial Indicators

The panel regression analysis of Sensex shares showed that, apart from share prices, there is no significant impact of ESG disclosure scores on financial indicators such as Earnings Per Share (EPS), Return on Equity (ROE), Return on Assets (ROA), and Financial Leverage. This implies that ESG scores may not be a primary driver of these financial metrics for companies in the Sensex Index.

Implications for Stakeholders

The research findings carry significant implications for various stakeholders, including investors, corporations, and policymakers. While the study didn't show a strong link between ESG scores and financial performance, it highlights the importance of considering ESG factors in investment strategies, especially in a world where sustainability and corporate responsibility are increasingly valued.

ESG Performance in Indian Companies

As per the ESG risk assessment by Crisil, it is noted that there has been an improvement in ESG performance among Indian companies. However, the majority of them still face challenges in this space. Only a small percentage of companies demonstrated outstanding ESG performance, while a significant number fell into the strong, weak, or below-expectation categories. This underscores the need for further efforts in improving ESG practices among Indian corporations.

Comparison with Nifty 50 Companies

The study by Rao et al. on Nifty 50 companies found that governance and environmental scores negatively impact Return on Equity (ROE). However, social practices did not have a significant impact on ROE. This suggests that the relationship between ESG practices and financial performance can vary between different indices and industries.

In conclusion, these findings highlight the complex and nuanced relationship between ESG factors and financial performance. While there may not be a strong, consistent impact on financial indicators in the Sensex Index, the importance of ESG considerations is not diminished. Companies and investors should continue to monitor and improve their ESG practices, especially in a world where ESG values are increasingly recognized and prioritized.

References

- Baruah, R. (2022, May 19). Most Indian cos are struggling with ESG performance despite good show overall | Mint. Mint. <https://www.livemint.com/companies/news/indian-firms-improving-on-esg-scores-many-still-below-average-crisil-11652950701136.html>
- Rao, A., Dagar, V., Sohag, K., Dagher, L., & Tanin, T. I. (2023). Good for the planet, good for the wallet: The ESG impact on financial performance in India. *Finance Research Letters*, 56, 104093. <https://doi.org/10.1016/j.frl.2023.104093>
- Zumente, I., & Bistрова, J. (2021). ESG importance for long-term shareholder value creation: Literature vs. practice. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(2), 127.
- Pollman, E. (2019). Corporate social responsibility, ESG, and compliance. Forthcoming, *Cambridge Handbook of Compliance* (D. Daniel Sokol & Benjamin van Rooij eds.), Loyola Law School, Los Angeles Legal Studies Research Paper, (2019-35).
- Ng, T. H., Lye, C. T., Chan, K. H., Lim, Y. Z., & Lim, Y. S. (2020). Sustainability in Asia: The roles of financial development in environmental, social and governance (ESG) performance. *Social Indicators Research*, 150, 17-44.
- Muthukannan, P., Tan, B., Gozman, D., & Johnson, L. (2020). The emergence of a fintech ecosystem: A case study of the Vizag Fintech Valley in India. *Information & Management*, 57(8), 103385.
- Lawrence, J., Rasche, A., & Kenny, K. (2018). Sustainability as opportunity: Unilever's sustainable living plan. In *Managing Sustainable Business: An Executive Education Case and Textbook* (pp. 435-455). Dordrecht: Springer Netherlands.
- Laine, M., Tregidga, H., & Unerman, J. (2021). *Sustainability accounting and accountability*. Routledge.
- McGregor, D. (2004). Coming full circle: Indigenous knowledge, environment, and our future. *American Indian Quarterly*, 28(3/4), 385-410.
- Dalby, S. (2013). Climate change: new dimensions of environmental security. *The RUSI Journal*, 158(3), 34-43.
- Shen, J., Chanda, A., D'netto, B., & Monga, M. (2009). Managing diversity through human resource management: An international perspective and conceptual framework. *The International Journal of Human Resource Management*, 20(2), 235-251.
- Solomon, J. (2020). *Corporate governance and accountability*. John Wiley & Sons.
- Dalal, K. K., & Thaker, N. (2019). ESG and corporate financial performance: A panel study of Indian companies. *IUP Journal of Corporate Governance*, 18(1), 44-59.
- Almeyda, R., & Darmansya, A. (2019). The influence of environmental, social, and governance (ESG) disclosure on firm financial performance. *IPTEK Journal of Proceedings Series*, (5), 278-290.
- Shakil, M. H., Mahmood, N., Tasnia, M., & Munim, Z. H. (2019). Do environmental, social and governance performance affect the financial performance of banks? A cross-country study of emerging market banks. *Management of Environmental Quality: An International Journal*, 30(6), 1331-1344.

Al Amosh, H., Khatib, S. F., & Ananzeh, H. (2023). Environmental, social and governance impact on financial performance: evidence from the Levant countries. *Corporate Governance: The International Journal of Business in Society*, 23(3), 493-513.

Sila, I., & Cek, K. (2017). The impact of environmental, social and governance dimensions of corporate social responsibility on economic performance: Australian evidence. *Procedia computer science*, 120, 797-804.

Bahadori, N., Kaymak, T., & Seraj, M. (2021). Environmental, social, and governance factors in emerging markets: The impact on firm performance. *Business Strategy & Development*, 4(4), 411-422.

Ortas, E., Álvarez, I., & Garayar, A. (2015). The environmental, social, governance, and financial performance effects on companies that adopt the United Nations Global Compact. *Sustainability*, 7(2), 1932-1956.

Taliento, M., Favino, C., & Netti, A. (2019). Impact of environmental, social, and governance information on economic performance: Evidence of a corporate 'sustainability advantage' from Europe. *Sustainability*, 11(6), 1738.